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VOLUME XIII

Number 4

SPECIAL FEATURES

MEETING OF AERONAUTICAL CHAMBER OF COMMERCE
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NAVY TESTS OF TORPEDO PLANES

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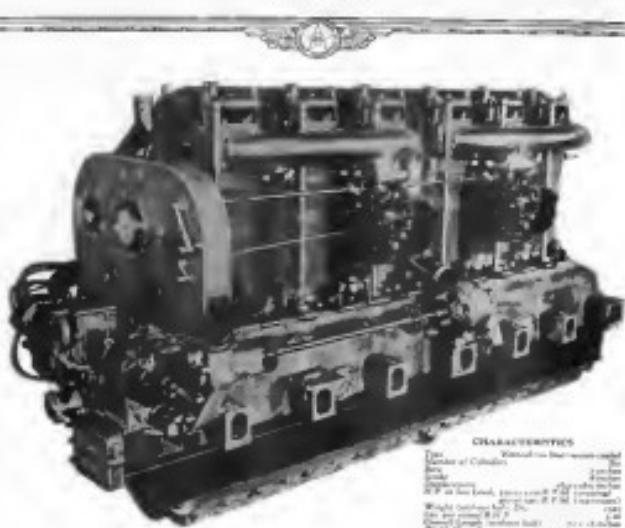
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AVIATION

Number of the Anti-Fascist Committee

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THE END



ANSWER



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GEORGE POWELL, SECRETARY-TREASURER

VOL. XIII

JULY 24, 1932

No. 4

AVIATION

LAWRENCE STOUT

Editor

VIRGILIA E. CLARK

EMMA P. WARREN

RUTH H. ULRICH

ADVERTISING SALES

America at the French Gliding Meet

American participation in the French gliding meet which is to take place next August will come as logically gratifying news to all those who believe in the leading position the United States has occupied these last few years in the matter of aircraft design should be proclaimed to all and sundry by entering the principal international aviation contests.

While financial consideration may at times render difficult the execution of this desire, there are some competitions from which American aviation should not be absent. The French gliding meet is one of these events, and it is therefore the subject of much attention to know that America will be well represented by the gliders built by the Aeromarine Engineering Society of the Massachusetts Institute of Technology.

While the scoring of points in a gliding and soaring competition depends to a large extent on the skill of the pilot, we believe that the M.I.T. gliders which are to compete in France represent a distinct advantage in the design of such aircraft. Considering that they are only the latest expression of modern American experimentation in the line of endurance, the M.I.T. gliders have a remarkably "finished" appearance, due no doubt to the fact that in their design an instant and proven aerodynamic has been employed.

Therefore, given a sensible amount of luck—which plays a role in no man's managerial or aviation, as in everything else—the American gliding team should give a good account of itself in the French competition. To this end the team has the best wishes of the American aeronautical community.

—Glenn L. Martin

The Vulnerable Part of a Battleship

If armor plates as long as the side of a battleship's power of resistance? Has the airplane bomb made the fighting, communication and condenser systems of fighting craft the most vulnerable parts of their equipment? These questions are receiving the most careful study by naval engineers throughout the world.

The main protecting feature of the battleship, its armor plate, is no defense against the airplane bombs. This is recognized by those who are open minded and want to know the truth. The large appropriations for steel for this purpose are dangerous to a few years of the power of aircraft to be allowed to be tested.

It is a new fundamental in war warfare that the vulnerability of a battleship to bomb attack leaves no possible reliance to its armor plate, as the armor plate does not perform any function in this respect. The armor plate only gives a short distance below the water line. Therefore, a bomb dropped in the water not far from the ship and exploding at a depth of 80 ft. or forty feet, would set against the thin structural plate below the armor and on the bottom. This could not stand very

much external pressure, being itself less in structural strength than the hull of a submarine, and we know, from experiments, that a submarine can be sunk by an ordinary depth charge of three hundred pounds of T.N.T. exploding at a distance of three hundred feet. Such pressure is about 1200 pounds to the square inch. It is therefore inevitable that an airplane bomb weighing four thousand pounds, with twenty-five hundred pounds of T.N.T. would sink any battleship not hundred feet or likely to be sunk if exploded within a few hundred feet of the hull.

The real points of attack of the airplane bomb are the structural plates at the bottom of a ship, and the fighting, communication and condenser systems of a battleship. These vital parts of any aircraft are not able to withstand earth-quake shocks such as come from the heavy explosive charges of large bombs timed to explode alongside a ship.

The people of the United States should call on Congress to prove to them by experiments with old battleships properly strengthened that the present battleships and those holding over exploded an attack from the air before most of the people's money is spent on vulnerable structures and, more important, before an enemy proves the truth of this fact by demonstration in time of war.

Aircraft in a Public Emergency

SHOULD anyone still doubt the public service aircraft are capable of rendering in a public emergency, such as a bigump of the transportation industry, the present indifference of America's air fleet, both military and civil, furnishes an emphatic demonstration to the otherwise.

The increasing of the industry by the Aeromarine Chamber of Commerce shows that within a few days one thousand civil aircraft, capable of transporting at least \$500,000 first class letter daily, could be placed in operation should the need arise. The cooperation of Army and Navy aircraft would further increase this number, so that little difficulty should be experienced in keeping at least the principal postal services going during the threatened lump of mail trains.

Never before has the aircraft industry had a similar opportunity to demonstrate the existing utility of commercial aviation. Should the need of the mail trains become an accomplished fact, the mails could be carried at much greater speed by aircraft using the existing transcontinental air mail route on a track line from which houses would infinite over a wide territory. While an emergency service such as this must be expected to function with the dependency of the regular air mail service, it is believed, nevertheless, that the younger mail pilots would put up a sufficiently good performance where landing fields are available to impress the public with the great advantages of aerial mail carrying and to lessen the advent of the compulsory storage of all first-class mail matter by air.

Cleveland-Detroit Airway Inaugurated

Aeromarine Airways Open their Great Lakes Division with a Daily Flying Boat Service



The Aeromarine Airways, Inc., on July 14 officially opened a daily flying boat service between Detroit and Cleveland with the arrival of two dozen passengers on the Flying boats the Santa Maria and the Wolverine in Cleveland after a 30 mile flight from Detroit.

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On board the Wolverine which was painted by E. D. Moseley, were C. F. Holden, president of the Aeromarine Airways, Inc., W. E. Metzger, president of the Detroit Athlone Club, Commodore A. A. Schmitz, president of the D & C Motorshop Co., P. J. Wred, managing editor of the Detroit Free Press, H. V. Wilcox, of the Detroit News, and Holton Holden, the managing editor of the Aeromarine Airways, Inc.

On board the Santa Maria, which was painted by D. G. Richardson, were L. H. Upperton, president of the New York Cadillac Motor Car Co., and senior and president of the Aeromarine Plane and Motor Co., the parent corporation, C. F. Kettlering, vice president of the General Motors Div., D. J. W. Inden, Commissioner of Police of Detroit, Carl

Fritsch of Detroit, Frank Lown of New York, T. Noyes, aviation picture photographer, C. S. Watt, general manager of the General Motors Co., and a representative of the Detroit Journal.

The boats arrived at Cleveland at 3:20 p. m. The passengers were greeted by a committee from the Cleveland Chamber of Commerce, headed by L. Marion, of the Old L. Marion Auto & Corp., headed the welcome delegation, H. J. Baugh, sales and advertising manager of the Aeromarine Airways Co., and Walter Hinckley, field representative of the company who also at the dock when the boats arrived. The visitors and welcoming committee were driven from the dock to the Cleveland Chamber of Commerce, escorted by a troupe of local girls. At the Chamber of Commerce they were met by Mayor Fred Kerasi, and M. H. Batory, president of the Chamber of Commerce, who as addressed the visitors and complimented Mr. Upperton and Mr. Holden on the remarkable achievement by the Aeromarine Company in developing commercial



Aeromarine crew and reception committee at Cleveland, Ohio, after the arrival of the Santa Maria and Wolverine from New York. Left to right—Ed. March, asst. pilot of Wolverine; Walter Hinckley, field representative of the Aeromarine; H. A. Price, Adm. & Sales Mgr. of the Aeromarine; L. Marion, head of reception committee, Cleveland Chamber of Commerce; C. J. Zimmerman, pilot of Wolverine; D. G. Richardson, pilot of Santa Maria, manager, and Naval Photographer Bureau.

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stations in America. The party returned to the flying boats at 3:30 p. m., and at 3:32 p. m. the boats left the water on their return flight to Detroit.

The Cleveland station of the Aeromarine Airways is at the D & C Dock at the foot of East 9th Street. Tickets and information may be obtained at the Aeromarine office at the telephone office of the D & C Co., 2549 East 9th St.

In Detroit the operating base is at the Macomb Park and the River. The downtown passenger station is at the foot of First Street. Tickets may also be had at the D & C offices. The operating equipment for this service is up-to-date in every way. Passenger boats and mail boats were shipped from the Aeromarine factories at Keyport, N. J., and are still situated at the Detroit plant. The Aeromarine division of Aeromarine Airways, Inc., has assumed control of Commercial Aeromarine. Aeromarine passengers may buy their tickets at the D & C sailing rooms at both cities. The boat schedules are as follows—

9:45 a. m. From Cleveland and Detroit. Return at 5:00 p. m. from each city. The fleet consists of Santa Maria, Wolverine, and a second open boat, the Niagara. Another eleven passenger boats and mail boats were shipped from the factory and are now on the fleet within a few days. The boats will sail the Northern.

In connection with the latest expansion of the air transport

years; in charge of Buffalo Curtiss Field, one year, experimental test pilot, four years, field supervisor, speed record, holds climbing record of 30,000 ft. in 10 min., made eight altitude flights, several about equalling world's record; American amateur Gordon Bennett Race 1926. Mr. Holden was manager of operations during the past Winter at the Miami Beach, Florida, Aeromarine Airways, Inc.

Honesty A. Bremer, sales and advertising manager, Aeromarine Engineering and Sales Co., Aeromarine Airways, Inc., in 1925, built and flew World's smallest monoplane glider, 200 lbs. designed, constructed and flew one carrying glider and motor drive monoplane; 1925, Aeromarine Royal Flying Corps, Canada, 1926, assumed in handling publicity for American aircraft companies through Manufacturers Aircraft Association; 1926, Aeromarine Airways, Inc., built boats through United States, demonstrated flying boats, first complete aerial transportation system of the Great Lakes.

Cyrus J. Zimmerman, chief test pilot, Aeromarine Plane and Motor Co. and Aeromarine Airways, Inc., in 1923, Curtiss Co. in Buffalo and the Curtiss Exhibition Co., Inc., launching in 1923, started flying instructor at Minotra; junior flying instructor, 1923-1925, Wichita Falls, Tex.; 1926, senior flying instructor. Mr. Zimmerman has made many flights from New York to Cleveland, and the Aeromarine Flying boat which made the first delivery of mail to Lake Erie at noon and his last flight was to carry twenty-four people on a pleasure flying boat mission from Keyport, N. J., to New York, a distance of thirty miles. This was the longest number of passengers ever carried in a commercial flying boat in the United States.

Edward Moseley, ex-Martin Campion pilot, was at the wheel of the Little Marvel when she made the world record long distance flight from Keyport, N. J., to Key West to Key West to Washington, D. C., 1,000 miles, the Gulf Stream, via Orleans.

D. G. Richardson, ex-Air Service pilot and after the War, chief instructor of the Cuban Air Service, served as commanding officer last fall when he saw one of the Aeromarine av-airstream flying boats with four passengers from New York to Havana, Cuba, in 29 to 30 min. flying time.



Charles F. Holden, president of Aeromarine Airways, Inc.

airlines of Aeromarine Airways, a few personal notes on the men who were instrumental in the construction and the re-organization of this present enterprise will be of interest. C. F. Holden, President of Aeromarine Airways, Inc., from 1920 to 1925, general sales manager, Indianapolis Division, Indianapolis Co., of South Bend, Ind., 1924 organized Holden Motor Truck Co., April 1925, elected President Aeromarine Engineering and Sales Co., and Aeromarine Airways, Inc. Under his direction the Airways, Inc., in two years has grown from one share passenger to 100 passengers. The operations have been extended from New York to Atlantic City, all over the South and West Indies, and now on the Great Lakes Division. Mr. Holden is vice-president of the Aeromarine Chamber of Commerce and it was at his suggestion and direction that the Santa Maria made the longest nonstop flight in the history of aviation. He has been active in establishing and maintaining aviation throughout the United States by organizing sales and distribution in existing state and city offices, in demonstrating flights. Mr. Holden is recognized as the one man who has made a commercial air-transport system a paying proposition.

Roland Holden, manager of operations, Great Lakes Division, was invited to fly by Vinton Gardner, instructor two

Washington Aero Club

Recently a number of Washington, D. C., aviation enthusiasts met at the University Club and discussed plans for the formation of a permanent Washington aero club. The proposal was discussed from all angles and the angle that received the most favorable consideration was to form an aeronautical basis at the start, which would later make the way easier for further development. It was pointed out that if the club maintained two planes, one of the land type and the other a boat, they could promote trips around Washington that would soon make for further expansion. Late memberships were also discussed as a factor to insure success and popularity.

It was also brought out that new clubs in various cities have proven over night and died in almost the same length of time. Members of the movement are anxious in their interests and Walter E. Blount declared, "We're not going to start the propellers off with a bang and a big celebration." Col. Hartney, secretary of the Aero Club of America, and J. M. Larson were among the speakers.

C. A. Wragg, sounding more cautious, was appointed temporary secretary and Mr. Blount temporary chairman.

The Larsen Trophy Award

The Contest Committee of the Aero Club of America on June 30 directed C. B. Wrightson, of Twins, Okla., to return to the Aero Club of Omaha \$2,000 as prize money which it is alleged, was supposedly awarded to him following the Larsen efficiency airplane contest, held in Omaha, last November. John M. Larsen, donor of the trophy, whose entire life has been devoted to the promotion and development of aviation, while the official award was given to Mr. Wrightson, has presented evidence supporting his claim that a fraud was perpetrated. Upon the return of the prize money, further hearings will be held.

Annual Meeting of Aero C. of C.

Membership has Almost Doubled in the Last Six Months - Varied Work of the Chamber

The annual meeting of the Aeromarine Chamber of Commerce of America, Inc., was held at the executive offices, 555 Fifth Avenue, New York City, July 13. The organization which was formed the first of the year, with a charter membership of one hundred, reports an increase of nearly 100 new members during the past six months, and a total membership of 180 at the present time. The meetings of the Chamber in August and December at Detroit were announced.

The following governors were unanimously re-elected: George C. Lounsbury, Leominster Aeronautical Engineering Corp.; Charles F. Reddick, Aeromarine Airways, Inc.; C. C. Warren, Aeroplane Manufacturing Co.; G. S. Hedges, Aeromarine Airways, Inc.; W. E. Hartman, Aeromarine Airways, Inc.; Frank J. Johnson, C. S. M. Faaborg, Fairchild Aircraft Company; John M. Lounsbury, J. L. Aircraft Corp.; Lawrence Sperry, Lawrence Sperry Aircraft Corp.; Frank H. Reiter, Curtiss Aeroplane & Motor Corp.; F. D. Bentzold, Wright Aeronautical Corp.

Following is the annual report made to the members of the Aeromarine Chamber of Commerce by the General Manager:

Membership

Our organization was formally organized Jan. 1, last, with 200 charter members. In the first six months we have increased our membership to 170, divided as follows: Class A-18, Class B-38, Class C-112. Since the last meeting of the Board of Governors, Class B and Class C members have been added. In addition, full and complete cooperation has been extended with our important groups in the lighter-than-air field. At the same time, we have the following:

Electric Storage Battery Co., Philadelphia, Pa.
Elliott Flying and Mfg. Co., Edgewater, New York.
Hamilton Auto Mfg. Co., Milwaukee, Wis.
Mercury Co., Kenosha, Wis.

Kodak Corp. of America, New York.
Standard Oil Co. (Indiana), Chicago, Ill.
Tide Water Oil Sales Corp., New York.

Flying Month

We have co-operated in holding two flying meets this spring, the first at Quincy City on April 20, and the second at Indianapolis on May 20. The attendance at the Quincy City Meet was conservatively estimated at 20,000, the case at Indianapolis.

In addition to the above, we have an agreement with the Detroit Aviation Society concerning our assistance in the management of the raffle of the Spring meet to be given at Detroit next October.

General Council

Washington, Class liaison has been maintained with official Washington. Representatives of the Chamber held a conference with President Harding, we subsequently had conferences with the Assistant Secretary of Commerce, Mr. Houston, Chairman Winslow of the House Committee on Interstate and Foreign Commerce, Mr. Kline, the head of the Department of Foreign and Domestic Commerce, and Judge Lynch, Solicitor of the Department of Commerce. As Judge Lynch's request, we called, at very short notice, a conference with him at his office in New York. At this time the entire subject was discussed in detail and it was planned that following this conference, final recommendations from the Department of Commerce were to be prepared and submitted to Congress. The advancement of the bill is now delayed in view of a suggestion that has been made to give consideration at that time to the question of consolidating all aeronautical activities of the Government in a single Department. This is regarded as very unfortunate as it will definitely foul final considerations very greatly.

Trade Association Conference

On April 23 we participated in the National Trade Association Conference with Secretary Hoover. A representative of our office was appointed to work with the National Automobile Chamber of Commerce and the Motor and Accessory Manufacturers Association, to prepare a foreign trade booklet to be distributed by the Department of Commerce throughout the world. Copies of this pamphlet have been sent to our members.

shortage of war law, to prevent unscrupulous material being sold to the public.

We have consistently and persistently advocated recognition on the part of the public and the Government, that we must have an aircraft industry before we can have aviation. We have also consistently advocated the establishment of increased acceptance and appreciation of this fact.

During the month of May we completed and submitted to the War Department an extensive aeronautical industry survey. This survey was based upon a questionnaire originating with the Secretary of War, which we addressed to our members. We received many valuable acknowledgments from them. We also sent a copy of the Office of Secretary of War, advising us that the information thus gathered is greatly appreciated by the Department.

Post Office Department: On Jan. 6, Feb. 21, April 20 and 25, hearings were held by the House Committee on the Post Office and Post Roads on bills introduced by Representatives Stearns and Kelly, proposing authority for air mail transportation. At the request of the Post Office Committee, we were given an opportunity to speak before the Postmaster General and the Board of Governors to the United States. A digest of the replies was prepared and submitted by us at the hearings. All of which has been printed in the official report and distributed to our members. Through contact with the office of the Air Mail Division, we have advised and encouraged the Post Office to develop a flying system.

Department of Commerce: We have prepared and submitted to the Secretary of Commerce, a general and report of congressional action in the United States during the past year. This was submitted to the Secretary of Commerce on April 16, and after being studied by the Department, the report was released by Secretary Hoover to the newspapers on June 26. This report also provided material for distribution to Congressmen. It has also been very generally helpful to the editorials in the home for a very large number of conservative editorialists in the newspapers throughout the country.

Aeronautic Legislation

Our work in connection with the Washington Bill, S. 3676, has been continuous. In addition to our discussions with President Harding, we subsequently had conferences with the Assistant Secretary of Commerce, Mr. Houston, Chairman Winslow of the House Committee on Interstate and Foreign Commerce, Mr. Kline, the head of the Department of Foreign and Domestic Commerce, and Judge Lynch, Solicitor of the Department of Commerce. As Judge Lynch's request, we called, at very short notice, a conference with him at his office in New York. At this time the entire subject was discussed in detail and it was planned that following this conference, final recommendations from the Department of Commerce were to be prepared and submitted to Congress. The advancement of the bill is now delayed in view of a suggestion that has been made to give consideration at that time to the question of consolidating all aeronautical activities of the Government in a single Department. This is regarded as very unfortunate as it will definitely foul final considerations very greatly.

For some time we have emphasized upon the War Department the necessity of great care in the release and sale of surplus aircraft. In the past, sales of surplus aeronautical equipment have been made in such a manner as to indicate the failure of machines to fly. We are therefore presenting to report that such a policy has now been adopted by the Department and that every precaution is being taken, in the

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interests, which we have either arranged directly or have assisted, are running each week. Aeronautical photographs have been given to the news photo agencies twice or three times a week, and at frequent intervals stories of unusual aeronautical interest are supplied to the Associated Press, the International News Service, United Press, and all foreign syndicates with headquarters in New York.

We frequently learn, some time after the event, that various members have participated or had knowledge of important aeronautical news stories, where the opportunity has been missed of utilizing our facilities in securing proper publicity due to failure to notify us of the event at the time. The members who are particularly requested, whenever practicable, to report to this office promptly, any event in aviation, that you may consider important, so that we may be in a position to publish such story repeated will be frequent, but you may be certain that, to the best of our ability and judgment, the stories will receive prompt attention.

Year Book

The Year Book is now ready for distribution. Members are requested to obtain it. Please do it promptly, if they have not already done so. This year's edition will be particularly valuable due to the unique Division in the Design Section. That consists of 18 full pages of line drawings of historical and contemporary engines.

Bulletin Service

Every effort is being made by the Chamber to eliminate unnecessary expense and difficulties and yet maintain our service. The rates, ledger, Congress, and other services, are now filled with "To" and "cc" and "etc." To meet a real demand, especially from the Class C members, and also to provide a service for the dissemination of data of general interest to all aeronauts, a new series of bulletins has been established, to be known as "Buletins." This bulletin, the first of which was issued in June, will be produced the first of each month and sent to the entire membership. This is also used for publicity purposes.

New Projects

Detroit Aviation: We have an agreement with the Detroit Aviation Society to cooperate with them in the management of the Races at the time of the contest for the Pulitzer Trophy. Details of the race, registration, and representation will affect to the details of management of the Races beginning July 20 and ending Oct. 26, and this will be either from New York or Detroit, handle and direct all publicity.

Chicago Meet: Through the intercession, a few weeks ago, of the Chicago Aeronautical Business, the situation in Chicago crystallized into a definite plan. For months there had been under consideration a flying meet and congress, but definite action was not possible until the last fortnight when a representative of the Chicago Aeronautical Business called on us.

The plan is to hold a flying meet and congress, Aug. 4 to 13, by which no schedule will be changed. The purpose is to develop Chicago's position in air transportation. The President of the Chamber and others, including Messrs. Conard and Reddick, have accepted invitations to speak. The meet, as presented to us, has our hearty approval and it is recommended that the Chamber sanction it and otherwise assist it in every way possible.

International Federation: There has been under consideration the establishment of an International Institute. It is apparent that at the time of the Pulitzer Races in Detroit, the program of the Detroit Aviation Society excludes the organization of an Air Congress in conjunction with the effort that is being made to perfect the National Aeronautic Association. In this regard we have been invited to act spontaneously on this subject, there is considerable divergence of opinion on this subject. This, as we know, is due to a misunderstanding of aims, scope and purpose of an air gloriety. Many of our members believe that an Air Institute would be better in consideration of maintaining precision and consequently recommended that the work be left entirely to the N.A.A. As a matter of fact, a program for an Aeronautical Institute would not only include papers on engineering subjects, but

* This letter was reproduced in our last issue.

Chicago Calls You



To

America's Greatest Aviation Meet, Aircraft Exhibition - Aeronautical Congress

Chicago calls you to the greatest air program in history of aeronautics, to be staged August 4th to August 13th, 1922, before the largest gathering ever assembled to witness any similar event.

First: Aviation contests for all types of airplanes and hydroairplanes, with liberal cash prizes and valuable trophies.

Second: Aircraft exhibition of airplanes and hydroairplanes, aeronautical material, equipment and accessories.

Third: Aeronautical Congress, with addresses by the country's foremost authorities on the various phases of aeronautics.

Grant Park, extending more than a mile along Chicago's lake front and within five minutes of the heart of Chicago's big business district, probably provides the finest facilities in the world for the holding of aeronautical events for both airplanes and hydroairplanes.

The yacht harbor of the Chicago Yacht Club, adjoining Grant Park, is an ideal landing port for hydroairplanes.

*These Prominent Men
Have Consented to Speak
At the Aeronautical Congress.*

Major General Mass M. Pritch, Chief of Air Service

Brigadier General Wm. Madell, Asst. Chief of Air Service [Retired]

Major Maurice M. Hickox, Chief of Air Service Information

Commander Charlton, British Air Attaché (Commercial Aviation in Great Britain)

General S. Bradley, Aeronautical Chamber of Commerce of America

Glen H. Curtis, Curtis Aeroplane Motor Co., Garden City, L. I.

General C. Loring, President—Aeronautical Chamber of Commerce of America

Colonel Paul Henderson, 2nd Aut. Postmaster General

Rear Admiral W. A. Moffet, Chief of Division of Aeronautics, U. S. Navy

Major General George A. Bell, Jr., Commander 6th Corps Area, U. S. A.

Captain W. Evans, Commandant Great Lakes Naval Training Station

Lieutenant Colonel Harold E. Harvey, Aero Club of America

Wm. B. Stroh, Steel Engineering Laboratories, Detroit

C. S. Rossen, President, Chicago Aeronautical Bureau, Inc.

Wm. F. McCracken, Jr., Chairman, Committee to Law of Aviation American Bar Assn.

C. G. Peters, Asst. to the President, Wright Aeronautical Corp., Paterson, N. J.

Major Frank H. LaGonda, New York City

C. F. Hadden, Aeromarine Airways, Inc., Fox of St., Detroit, Mich.

CHICAGO AERONAUTICAL BUREAU

Suite 1170 - 1172 Congress Hotel

Chicago, Illinois

consideration of questions of aerial law, national and international policies, insurance, robbery and aerial use of strength, organization of aerial transportation enterprises, both as to personnel and finance, etc., etc.

Co-operation with Local Chambers of Commerce

As we are increasing our contact with local Chambers of Commerce, we invite interested members of the business organizations for co-operation. They are gradually becoming the habit of not only referring to us the peculiar question of their locality regarding landing fields and the establishment of air lines, but the inquiries that they receive from individuals as to aeronautical questions.

Safety Information

We have an increasing number of requests for information regarding sources of supply for aeronautical materials, which is regarded as a very welcome sign, not only as indicating the manner in which our organization is being used, but the increasing interest on the part of the public in aeronautical development.

"Mechanical Solution of Soaring Flight"

Editor, AVIATION

Since I have given so much space to Mr. Baldwin's article on the problem of Soaring Flight, Vol. 315 No. 26, June 28, 1932, pp. 709-712, a few comments may be interesting:

The principle that there is a vector and has a direction and sense, and that a mass can move no faster than from a force as a plane prependicular to its westerly direction, seems to fit facts as well as that a theory not in accordance with these principles would be wrong consideration. The forces of gravity cannot have any effect to move a mass in a horizontal plane.

Let us consider Mr. Baldwin's analysis, on fig. 2 (an aerotow supported below it at a point on the ground) when there are three units, the "Petal," is soaring for the first time as this occurs:

If the test was made at Ashdown Field, the airframe of the new Cessna of 1000 ft. over Chicago, in order to get an accurate base on the performance of this unit, a so-called "Soaring" flight test was arranged between a standard three-seated "Tyro" equipped with the regular G35 motor and a special "Tyro" "Soarer" equipped with a 150 hp. G35-Carrie Navy type engine. The "Soarer" was owned and flown by Mr. George, owner of the Ralph C. Baldwin organization, and "Soaring" by George E. Post of the Baldwin-Delco Auto Corp.

The results at a low level were considered.

If the rigid figure shown in this diagram has no mass it does not cost a force to move it, but let us assume that like a bird, it has a mass with a center of somewhere near B. Under these assumptions the "Soarer" will be supported by an equal and opposite reaction resulting at A. In addition, a force perpendicular to C will be introduced by the air stream acting on C (partial displacement).

The reactions at A have not been considered.

If the rigid figure is moved forward steadily as the mass increases, the reaction at C will increase proportionately, until C, acting at A, the figure will be rotated and the dotted figure in Mr. Baldwin's article will be attained.

This is sufficient comment to show that Mr. Baldwin's analysis of soaring flight as expanded in the article gives no reason

AMERICAN BALLOONING
Washington, D. C.

New British Air Line

A scheme for the establishment of air services between Southampton and the French ports Cherbourg and Le Havre has been announced by the British Aeroplane Co. Ltd. The services will be operated under the ownership terms of the fully subsidy made public in June of last year. A new company, probably with the aid of the British Marine Air Navigation Co., Ltd., is being formed to operate these new services, and in addition to the promoting company certain shipping companies will be financially interested in the scheme.

The scheme makes an important stage in the development of British air transport, as the company will see, for the first time marine aircraft, designed and built by the

Supervisee Aviation Works, Ltd. The existing British services are land types of aircraft only.

The main object of the scheme is to shorten the cross Atlantic journey by picking up passengers from Cherbourg, conveying them rapidly by air to Southampton and thence onward to London by train. In addition, the company intends to operate a service between Southampton-London in order to shorten the cross-Channel service between London and Paris. For present purposes, however, the firm is to hold those interests for the necessary time for the ultimate operation of the London and South Western Railway Co. It is connected with through bookings between the terminal points on each route. Subsequently it is proposed to operate a route between Kaplan and the Channel Islands for passengers, luggage, mail and express. Then the services will also endeavor to greatly the time taken by the vehicles and the standard.

The company will incur a liability of 25 per cent on the gross earnings from the carriage of passengers, goods and mail, and also a payment of £5,100 per passenger carried and £100 per lb. of goods carried. The latter passengers will have the right to approach companies operating the London-Paris air services. In addition, the company will receive compensation similar to that at present provided to other approved companies.

The French authorities have been approached for the provision of the necessary status facilities at their ports, and the French railway companies concerned are also assisting by providing suitable train connections on their part of the through route to Paris.

"Petal" in Another Competition

The West Delco Auto Corp. has again demonstrated the remarkable efficiency of the Goethings 267 wing, which they now three units, the "Petal," is soaring for the first time as this occurs:

If the test was made at Ashdown Field, the airframe of the new Cessna of 1000 ft. over Chicago. In order to get an accurate base on the performance of this unit, a so-called "Soaring" flight test was arranged between a standard three-seated "Tyro" equipped with the regular G35 motor and a special "Tyro" "Soarer" equipped with a 150 hp. G35-Carrie Navy type engine. The "Soarer" was owned and flown by Mr. George, owner of the Ralph C. Baldwin organization, and "Soaring" by George E. Post of the Baldwin-Delco Auto Corp.

To view the fact that neither timing apparatus nor recording barometers were available, the two planes were placed side by side on the ground, and were started at a signal from James Curran, Chief Pilot for Delco. It had less power than the full plane and took the best possible start up to 1000 ft. altitude, where the test was discontinued, after which the winner would circle around until both were again together, when a straight away speed trial at the level would be run.

The "Soarer" with its added power was the first to leap ahead, and first to take off, with the "Petal" taking off from the same elevation point a fraction of a second behind. From the start the "Soarer" was clearly superior to the "Petal" for the "Petal" rapidly cleared away from its adversary and had the advantage of some 600 ft. in the line of flight and approximately 300 ft. at altitude when the 1000 ft. level was reached. The planes then flew side by side with another wide open in a very shallow climb, and the "Petal" again showed a decided advantage of speed.

The "Soarer" was able to compete directly with the "Tyro" putting the 90 hp. G35 at 150 and 160 hp. planes and in all three cases the "Petal" proved superior in both speed and climb, with marked superiority in maneuverability and ease of handling throughout. Huff-Daland and Co. state that this superiority is due entirely to the more efficient wing curve, the flat rigid fuselage construction which has characterized all their machines and the general disposition of surfaces and weights.

Trade Notes

The first boat "Lady Baldwin III" of Eastern Airways, Inc., 2 East Lexington Street, Baltimore, Md., has arrived at her port of destination, where she secured 6250 miles in 92 hr. flying without an accident. Hundreds of passengers were carried. The crew, including L. I. Collins, business representative, F. Irving, Master, pilot, and C. H. Hayes, manager, report that they met with considerable interest in commercial aviation wherever they traveled.

The Longue Arrière Corp., of Topeka, Kan., has just issued a circular for the acquisition of "New Longue," the name of Nebraska with the Nebraska-Longue Co., of Omaha, Neb. It is the plan of the new company to manufacture hangars at Grand Island in the near future. Tom Hendryson, manager of the Nebraska-Longue Co., has estimated a total of the state and major parts interests in the "New Longue" plane. The Pioneer Aero Co. of Salt Lake City, via the Kansas distributor for the "New Longue," has now organized, and purchased in the Arkansas Longue, and is now flying. Sales begin July 4 and 5.

American Aviation, Inc., of Baltimore, Md., recently delivered two machines by air, one to Massachusetts and the other to Virginia. The previous week the company delivered by air numerous packages on a 300-mile trip along the east coast of Chesapeake Bay for a Baltimore department store. Other activities of the firm include mobile aerial photographic work, to date privately many survey flights, and aerial advertising, including aerial photographs taken during night for major motion picture studios. Last week the huge plant of the Pennsylvania Water & Power Co. at McCall's Ferry, Va., was photographed.

Tropic Airways, Inc., Michigan City, Ind., was the "first" to the Chicago airports at the foot of Randolph street at Lake Michigan, by landing the partners of the Leonidas-Krause plane right in Chicago 18 min. ahead of the nearest second competitor, who was Nansen Black. The Leonidas was over in a record time with passengers, and the Tropic was over while the other passengers flew with the Chicago Tribune pilot. It is said by Black's statement that he lost the man because of shyness of the personnel in getting the pictures to him after the fight. Aboard the H2E "Dixie" was Frank E. Brewster, Mechanic E. F. Knutson, and Monroe Krause, station editor of the Chicago Tribune. The Tropic Airways, Inc., under the management of Capt. Paul A. Townsend and Mr. Collier of the Tropic Airways, has recently entered these operations on the route to Milwaukee and northern Wisconsin.

The L.W.P. "Dixie" brother, H2B, with three 800 hp. Liberty engines, was recently rebuilt in the plant of the L.W.P. Engineering Corp., College Point, L. I., and has been taken to Ashland Field for trials. Several changes which are expected greatly to improve the performance of this large aircraft have been carried out during the reconstruction.

One man and four-motor-engine flying boat between Homestead, Fla., and Key West, Fla., about 1000 ft. altitude, was recently made by a Delco with OX5 engines, serving a party of three, with the aid of a 25 to 30 mph. following wind. The machine was occupied by Mr. and Mrs. C. D. Chastek and Russell Townsend, pilot, and was being delivered to an Army customer by Chastek as exchange for a Ford car. The cost of oil and gas for the trip was only about the same as railroad fare for one person. Mr. Chastek, who has a license of a large number of Ditch, with OX5 engines, expects to make a number of flights in his machine.

The Glaser-Dirks Co. of Cleveland has recently developed and installed machinery and facilities for the fabrication and heat treatment of aluminum, which will be used in a large degree in the construction of the various new types of planes now being designed and built at their factory. At the meeting recently held in Cleveland, the aircraft industry, the government, and business leaders have been particularly hard for the purpose, and by means of an excellent program the past year, has transferred the bulk to the engineering task in fifteen seconds. This institution is said to be the most complete of its kind in the country.

Aircraft for R. R. Emergency

If it should happen that every road line throughout the United States would cease to run, the Post Office Department assesses that it would continue to transport the mails throughout the country by water tank and airplane.

The Department has an air fleet of 5000 seaplane airplanes. There are forty planes in the service with twenty-one in the air each day. There is a waiting list of twelve planes, which would be quickly summoned should emergency demand. Any new aircraft could be called upon for assistance, and it would be possible to carry all the first class mail between New York and San Francisco and from the Lakes to the Gulf.

According to an estimate prepared by the War Department, the Army Air Service has 150 planes and 150 pilots ready for service as air mail pilots, widely distributed over the states. Each plane is capable of carrying on an average 400 lb. of mail. It is estimated that they could carry 6,000 lb. of mail each day. Of the planes possessed by the Post Office Department, 1200 are水上飞机 and 3000 are land planes.

The New York Post Office estimates that it has 163 airplanes and 248 pilots available for the emergency. This worked out as follows: the Air Mail Service cover the feasibility of operating seaplanes as aerial carriers since the entire coast line of the United States and in addition it was stated that the service could be readily rendered by seaplane mail routes via the network of inland waterways.

The Aeronautical Chamber of Commerce is offering the services to the Post Office Department, located in the rooms located in the New York, Philadelphia, Baltimore, Boston, Newark, Detroit, Minneapolis, Chicago, St. Louis, Kansas City, Spokane, Los Angeles, San Francisco, and Seattle were prepared to provide airplane mail service in case of disaster emergency.

It is estimated that four planes could carry all the first class mail between Washington and New York City. Between such points as Detroit and Cleveland, planes could make as many as four trips a day. As now equipped the Post Office Department planes can carry 30,000 lb. of mail at one flight.

Air Chiefs to Fly to Chicago

Maj. Gen. MACE M. PRATHER, Chief of Air Service; Rear Adm. ALFRED A. MEDFORD, Director of Naval Aeronautics; and Col. PAUL BLANDFORD, Second Assistant Postmaster General in charge of the Air Mail Service, expect to fly from Washington, D. C., to Chicago to attend an annual congress and aviation meet to be held there Aug. 4 to 12.

William P. Stewart, president of the American Bar Association, in connection with a study of the Wadsworth-Hicks Act, intends to fly each month on an air mail ship from Chicago to San Francisco to attend the annual meeting of the American Bar Association, where he will submit a report on proposed aeronautical legislation in Congress.

The congressional session and aviation meet will be held in conjunction with the annual Festival of Progress, held at Chicago. The congress will originate the Ninth District of the National Aeronautic Association, which comprises the states of Illinois, Michigan and Wisconsin.

R.38 Memorial Fund

It has been decided to utilize the Royal Aeronautical Society's R.38 Memorial Research Fund as follows:—(a) To the placing of a memorial tablet in the Royal Aeronautical Society's Hall, Farnborough, England, of 25 names for the members of the R.38 crew; (b) To the awarding of a special prize for the best paper on aeronautics, preference being given to those dealing with an aeronaut subject; this prize to be open to international competition; (c) To the collection and collation of information on the development of design of airships in the present stage.

Navy Tests of Torpedo Planes

Study has begun with various types of torpedo planes which employ the most advanced ideas of foreign and American builders, and are being held under the direction of the Bureau of Navigation at Naval Air Station, San Antonio, Tex., and the next few weeks should give to Naval Aviation the best torpedo plane in the world.

A. H. G. Fokker, designer and builder of the famous Fokker monoplanes used by Germany during the World War for pursuit and assault work, is now at Anacostia. He is directing the tests of his own planes, which is an adaptation of the German monoplane. In comparison with the Fokker planes and types of aircraft used in America, design, and with the right tools under way each type is being put to its merits.

The practically decisive advantage possessed by a fast flying a world working wing of torpedo planes is a matter of vital importance to naval supremacy in war and the thorough and comprehensive investigation along these lines conducted by the Bureau of Navigation holds far-reaching consequences in the field of Naval aviation.

With the completion of present trials, investigations will be conducted which will necessarily represent conditions in Naval battles of the future, when torpedoes launched from aircraft at a battlefield will be perhaps the most successful attack to be met or either avoided if possible.

The present series of plane developments by Naval Aviation as the result of the rulings by the General Board of the Navy, reflected in the recommendations of the committee to determine the total requirements for torpedo planes for future aircraft. When reports of results in Naval Aviation had been heard and digested, and the Bureau of Ordnance, Construction and Repair, and Engineering had been consulted, specifications concerning the characteristics of the best torpedo plane to fit all requirements of service were drawn up and contracts with five aircraft manufacturers were drafted. It was understood the British Royal Air Ministry had in mind a satisfactory type of torpedo plane, and the specification of one of these planes was contracted for. Mr. Fokker was called into consultation and asked to study the specifications for a torpedo plane in the existing design of his combat plane, and these American manufacturers worked simultaneously on the problem.

The Canadian Aeroplane and Metal Corp. constructed a plane known as the biplane having two 600-hp. engines. The CT had recently been subjected to trials and tests at Jacksonville, Fla., and will not be tested further for the present at Anacostia. The Stain, Engle Locomotives of Detroit constructed an untried monoplane having a wing span of 30 feet and a top speed of 300 hp. Purchased complete, The Davis Douglas Co. of Los Angeles designed a biplane, type DE, having a single Liberty engine, and the Canadian plane had a series of successful trials at the Naval Air Station, San Diego, Calif., before the trials now in progress at Anacostia.

The Fokker is a large monoplane and carries a single lady passenger. Before the arrival in this country for the competition the Fokker was flown in test flights before Lt. Comdr. S. H. White, U.S.N., at Anacostia.

The British plane was brought to trial before being brought to this country. These trials were conducted by the manufacturers in the presence of the American naval attaché in London.

The foregoing illustrates the care that was taken to insure an assembly of the very best types of aircraft in the world suitable to torpedo work. Of the foremost international talents now enlisted, and by elimination, five types of torpedo planes have already the rigid competitive tests at Anacostia were inaugurated.

The problem of developing strength for torpedo aircraft has been given consideration and deep study by leading experts and authorities on Naval Aviation in all parts of the world since aircraft was first recognized as a vital arm of the fleet. The problem of launching a torpedo from a plane has however presented difficulties and problems which have now

placed themselves in every form. By extensive study and investigation, the different have been overcome and the problems solved to an extent which insures the torpedo plane to be a source and anticipated凭仗 among the equipment for successful fleet operations in time of war. It appears as possible which have yet to be worked out as defining boundaries against attack. The deadly effect of the torpedo is a factor to be reckoned in the last war, but compared with the resources and destruction the torpedo plane will be an almost imperceptible instrument for offensive purposes, except as a sturdy boat. Is the naval battle of the future certain to be won by the power to dominate victory? The answer will be established by such high powered combat planes which will sweep the air of enemy aircraft, sweep to them the bases of mounting concentrations of attack.

What the air can do, is gauged by that fact which happened to obtain the results, and the results may easily be attained by a superior air force thoroughly drilled and equipped with the latest and best in aircraft. The initiative and resource displayed by Naval Aviation in maintaining an air fleet at the highest point of efficiency which is subject to the control and direction of naval officers and naval warfare, makes known every phase and requirement of naval warfare to the world in the United States a lead which will be easily followed.

Aeronautics Executives' Luncheon

George P. Loesing of the Loesing Aeronautical Engineering Corp., of New York, was the speaker at the Aeronautics Luncheon held at the Automobile Club of America, New York, on July 12.

Assistant Postmaster General Paul Henderson in charge of the Air Mail Service, came to have addressed the Executive who turned to good account in the business of the security of mailing an air mail flag to the Pacific Coast. It is expected that Col. Henderson will attend the next Luncheon to be held on August 9.

Mr. Loesing emphasized the necessity of combining what he characterized as a previous notion, that the American aircraft industry was lagging behind its European competitors. He pointed out that the present records except for straight-wing model under 2.5 ft. radius were held in the country and that that record would naturally need to be held to our last. An example of outstanding American success with performances exceeding anything stored in similar class was mentioned the Martin Bomber and the V.E.T. advanced training machine which latter had a performance exceeding the 1931 passed stage at McCook Field, and Mr. Loesing, in the Army, had all-around American planes equal to any in the world today.

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ARMY AND NAVY AIR NEWS

Air Service

Captain Elmer E. Flack—Last, James H. Doshiel and Edward R. Andrews, Air Service pilots, arrived at Bolling Field at 6:30 a.m. on July 4, after a remarkable trip. They left Kelly Field, Fort Worth, Tex., on the evening of June 29, 1932. They made a short stop at Houston, Texas, and landed early in the morning at Jacksonville, Florida, after ten hours in the air on Monday, having covered a distance of about 1,220 miles that day. They left Jacksonville on Tuesday morning, and after a short stop at Langley Field, arrived at Bolling Field, having covered about 600 miles en route in the air that day.

Gen. Failey—Seventy-five Reserve Officers visited the field recently for the purpose of inspecting the field. These officers are undergoing a course of training at the Presidio of San Francisco. Special demonstrations of bombs dropping, smoke, incendiary, gas, formation flying, etc., were given including aerial photography of the field by the Army. The Reserve Officers obtained successfully enough time for practice activities through this week, and will with a wary eye observe the progress of Cross Field.

The participated several of approximately 200 selected men at Cross Field from the 10th Squadron at March Field and the 10th and 20th Squadrons at Mather Field, most of the noncommissioned of the Post are going to be either severely trained for a few days. Those men will be held here pending orders of transport to the Philippines and Hawaiian Department.

Capt. L. H. Smith is now on the first leg of an extensive photographic flight which includes the states of Idaho, Wyoming, Montana, Utah, Oregon and Washington, and which covers approximately 3,000 miles. The flight was made for the purpose of taking aerial photographs of the landing fields in the North Corps Area.

Airman Phillips—Captain F. H. Bush, Air Service, made flights on June 4, 5, 6 and 7 from Mather Field to Buffalo, N. Y., return to Altus, Okla., and Muskogee, Okla., and returned to Altus on June 10, the purpose of these flights being to open up a new air route, which offers a shorter route to alternate landing fields, easier with another bureau of War stations and secure other data for civilian and military navigation. Flights were delayed and several landings made outside due to heavy rains which fell on those days.

Pearson Flights for Reserve and National Guard Officers—Two XB-11A Grumman planes were recently leased by the Air Office of the 1st Corps Area to be used in giving practice flights to Reserve Officers and National Guard officers in that area.

XB-1A Airplane in Cross Country Flights—Captain Shaw, flying the 13th Squadron, made a cross country flight from Kelly Field to El Paso, Texas, and return, in an XB-1A airplane on June 29, 1932. Captain Shaw and his crew of three men were visited by an XB-1A plane during the past month. These flights included Bremerton, Ellington Field, El Paso, Waco, Dallas and Fort Riley, Okla. In addition to these cross country flights, the 13th Squadron has been using these ships for photographic, radio, infantry route, courier service and bombing missions.

Carlstrom Field—A class of forty-five student officers and cadets taking primary flying training at the Air Service Primary Flying School, Carlstrom Field, Avondale, Fla., were graduated in June 8, 1932. This class began training Jan. 1, 1932. Ten per cent of the class were recommended for advanced training, and the remaining 90 per cent, Lt. Alvin C. Mizell, Cadet L. Q. Wason, Lt. H. Thomas C. Petty, Twenty-four per cent recommended for Headquarters, 1st Major C. J. Brown, Captain D. Wilson, Lt. C. L. Williams, Lt. R. H. Womatt, Capt. R. F. Conner, Lt. G. C. Purham, Cadet L. D. Stagg, Cadet R. F. Gray, Cadet G. C. Thompson, Cadet H. W. Phillips, Cadet G. L. Barnard, Cadet W. A. Wrenn, Cadet E. A. Bass, Cadet G. P. Hubert, and Cadet W. C. Johnson, Capt. W. L. Lyons, Lt. L. J. Gandy, Capt. G. H. Barnes, Capt. W. L. Lyons, Lt. L. J. Gandy, Lt. R. H. Parker, Lt. W. S. Jess, Lt. R. A. Hodge, Cadet L. L. Jones, A. Hines, G. S. Hugger, C. W. O'Flaherty, E. Finn, C. E. Bowman, J. J. Walker, J. F. Morris, H. Gamble, H. M. Newstrom, R. Pyle, G. R. McNeil, E. E. Merriam, M. B. McIlroy, W. White, G. C. Hofford, P. S. Hougham, and J. D. Giles, T. Gule.

The graduation ceremony was preceded by a special flying program featuring the 1st Pursuit Group, which performed a series of aerobatic stunts. The graduation exercises were preceded by a special flying program of Cross Field.

The participated several of approximately 200 selected men at Cross Field from the 10th Squadron at March Field and the 10th and 20th Squadrons at Mather Field, most of the noncommissioned of the Post are going to be either severely trained for a few days. Those men will be held here pending orders of transport to the Philippines and Hawaiian Department.

Capt. Clarence C. Foss, Inf., relieved from duty at McCook Field, Okla., is assigned to the 10th Inf. Presidio of San Francisco.

First Lt. Harry C. Womatt, A.S., relieved from duty at Cross Field, Fla., and from temporary duty at Post Field, Okla., is assigned to the 10th Squadron (Maj.) at Fort Riley, Okla. for duty.

First Lt. Marion W. Holden, A.S., relieved from duty at Langley Field, Va., is assigned to Brooks Field, Tex., for duty and training in the Air Service Primary Flying School.

Air Service Mechanics School—Two classes were graduated on June 3 from the Air Service at Chiatah Field, Bartow, Fla. The first class, consisting of eleven students, will be transferred as follows: those in the Panama Canal Zone and four each to the Philippine and Hawaiian Departments. The second class, consisting of sixteen students, likewise will be transferred as follows: one each to the Philippine and Hawaiian Departments, three to the Panama Canal Zone, and one to the 10th Squadron at Mather Field. These men will be transferred shortly after July 1, 1932.

White's First Modular Landing Field—The town of Brewster, Me., where June 18, the 1st Corps Area opened the 1st of the first modular airplane landing field in the State. Among those present during the dedication of the field were several Regular Army officers stationed in the 1st Corps Area, National Guard officers of the State of Maine and Army and civilian airplane pilots.

DEAD Flights Show Condition Performance.—An interesting experiment was recently conducted at Kelly Field, Texas, in connection with the DH-4B biplane. In an effort to find the best step for speed in the 200 ft. sequence, a six mile run was flown by five steps. After arriving the sequence in close formation the ships were aligned heads each other and at a certain road crossing a signal was given and the biplane was sent back to the starting point after interval at Kelly Field. On July 20 it declared the winter, but it would have taken some better weather to make those good by Mother Nature to select the weather, as the steps crossed the line as if they were all projected by the same motor. The pilots reported that their motors lasted up between 1250 and 1800 rpm.

In order to determine the best step for the altitude, the five steps were again placed in the limb, and after arriving at the first step the biplane was sent back to the starting point and the nose raised to higher altitudes. At the end of the tests the ships returned to the ground and altitude averaging between 12,500 and 13,500 were reported. All of the tests were made with standard DH-4B's and no changes were permitted to be made in order not to perform differently than any other.

One of the pilots had an unusual thrill in taking off the sea of the country, as he had found the biplane fell off the ground right at the middle of the take-off. After attempting a little altitude the ship was almost parallel to the pilot's hand, therefore the rubber rod held her sought positions other than regular flight, causing the ship to stop over and skid. The pilot noted the machine as he was playing up with the controls and recovered the ship.—"No, sir, last time is a good seat hogger on the tail skid which is dropping when you are flying up, so you remain to the front, and after an inspection of the controls,发现 which everything was found O.K., the pilot took off and found the ship flew more to his liking. The parasite was evidently picked up on the take-off, as a place of contact had been placed on the ground to mark spots for accuracy landing.

Reserve Officers Training at Mitchel Field.—The Reserve Officers Training Camp opened at Mitchel Field on June 12th, all preliminary arrangements having been made to properly effect the receipt of the students and initiating activities.

The first of the students have already arrived, and a total of twenty-six are listed in arms for training. The incoming class comprises the list of Reserve officers, eleven of whom are officers regularly assigned to Mitchel Field, or instructors in the various phases of the course. Eight students will be used in the several sections of the training. All of these places are occupied with special apparatus, such as phonographs equipped with microphones, etc. The Camp will continue at Mitchel Field until July 27.

Spreading New England Forest by Airplane.—Following previous experience in connection with the spraying of trees by airplane, plans have been formulated for spraying a section of the New England forest by the method. Capt. R. A. Kinnair, Air Service, on duty with the 1st Squadron at Mitchel Field, L. I., N. Y., was detailed on this duty and departed for Boston, Mass., to make arrangements for the acquisition of the forest to be sprayed, and has been in consultation with the representatives of the Department of Agriculture who was assigned to conduct the experiment.

General Mitchell Visits Chautauque Field.—Brig. Gen. William Mitchell, Assistant Chief of Air Service, accompanied by his adjt., Lt. Col. Clayton L. Shultz, headed at Chautauque Field on June 9, but remained only long enough for the planes to be serviced and took off immediately for McCook Field, Dayton, Ohio.

Naval Aviation

Secretary Roosevelt as Naval Inspector Tour.—Thomas Roosevelt, Acting Secretary of the Navy, left Washington on July 22 in a naval seaplane for an inspection tour of Naval Air Corps training stations and naval bases. Two P-2D biplane planes have been loaned to the Atlantic Fleet Air Service to carry the Acting Secretary and his aids. Lt. Cmdr. J. P. Tamm, D.B.N.C., on the staff of Roosevelt, is in charge of the flight of the coast from N. Y. to New London, Conn., arriving there the next day. On July 24 Roosevelt will inspect an inspection of the Saltonette Base. The following day he will visit every the inspection party to Newport, R. I., where the training station and other naval activity will be visited. Mr. Roosevelt will visit the Naval War College the next morning. From Newport the route will be made to Boston, Mass., to New York City.

The purpose of the inspection tour of the Acting Secretary of the Navy enables him to keep in close personal touch with naval activities and activities which are operating at considerable distance from Washington and to be more fully cognizant of the status of absence from the press of important details at the capital.

Navy inspectors are finding increasing uses for spending up-to-date work of the Navy Department in the functioning of naval business and the nonimportance of personnel on naval duty.

A notable instance of this occurred during the past week when the NCS, the largest seaplane on the Naval Aviation Service was disengaged from Hampton Roads to Philadelphia carrying a complement of twenty officers and men. This the largest flight that has been made in this country by a single aircraft since the passage of the act.

The occasion for this flight was the transportation of an Army pilot to the Aircraft Factory in Philadelphia for the purpose of diagnosis for torpedo planes which will be used in maneuvers with the Atlantic Fleet this summer. The torpedo planes were sent to Hampton Roads the latter part of last week, where they will be immediately placed in use at the Atlantic Fleet Air Squadron.

After the completion of the flying up inspection work in progress and the flight of an NCS, the large type of Navy seaplane plane to Philadelphia from Washington on Friday when space permits we again needed to score on the test work on new types of seaplanes at the Naval Air Station, Anacostia.

Naval Air Station Fresh Harbor.—Naval Aviation units based on Pearl Harbor, Hawaiian Islands, have co-operated with officials of the Internal Revenue Service in the prevention of pirates smuggling into Honolulu with marked success during the past few months according to a advance recently received by the Bureau of Prohibition of the Navy Department.

When based on the Oahu Islands, the ships at Honolulu have apprehended on the command of agents by the Bureau of Prohibition and surface ships attached to the Naval Air Station, and in some cases confinement of narcotics in San Francisco has resulted from information furnished by officials of the Hawaiian Islands. The use of Naval Aviation forces for this purpose has a counterpart in the apprehension of smugglers along the coast of the United States from West Indian ports and territories and a number of Naval stations in cooperation with the civil administration of the government in the interest of law and order.

Admiral Moffett an Aviation Observer.—After a strenuous day in learning general aviation, observation and navigation, Rear Admiral Moffett, head of the Naval Bureau of Aviation, has returned to Washington from Pensacola where he recently qualified as a Naval Aviation Observer in flying of a new class of flying officers. Heretofore the Navy, unlike the Army Air Service, has had no rating for observers, but recently it was provided that not over 15% per cent of the total officer personnel of the Navy might qualify as Aviation Observers, and by this means the Bureau may select and train about twenty men for this rating.

Air Squadrons, Pacific Fleet.—The San Francisco District reports the following:

Combat Squadrons. Three squadrons were established and testing is underway. The first group, or plane, planes equipped with standard equipment for combat operations, was officially started on the Squadron including practice of elementary aerial tactics, such as steep dives, climbs, 360 degree turns, degrees of position of nose in formation, changing from "V" to "bunching" formation, etc. Standard results were obtained. The Balloons of the Air have been reorganized as a single and smaller factor in all conditions of flight. Two single engine planes were transferred over to the Commandant Seaplane Base. Four permanent squadrons. There are eight Vought seaplanes in commission in this Squadron. Seaplane Patrol Squadron One, Seaplane No. 3 and 4 left San Diego at 0730 on May 22, 1932 to assist in the recovery of torpedoes. Seaplane No. 5 returned to San Diego at 1545 on May 25 having completed operations. On May 29 Seaplane No. 2 which had been damaged in an attempt to drop a torpedo at the mouth of the Columbia River, due to breaking of crew-sail, was repaired at the standard engine. This work was done under the direction of Captain Peacock. The seaplane is a 20-ft. long, 8 ft. 6 in. wide. The plane was then flown back to San Diego arriving only two days behind the regular schedule. There are six PBY seaplanes and one SB2C seaplane in commission in this squadron.

Naval Air Station, Rockaway.—The Naval Air Station at Rockaway, L. I., is finally to be abandoned, it was learned at the Navy Department recently, and the annual removal of troops and officers will start within a few weeks. The land belongs to the City of New York, and the arrangement is a recent one, joined by the Board of Aldermen, the city, to prevent Rockaway from becoming a separate town. This is a dangerous trip and I do not know if it can be made safe by the only way to find out is to try, as I will make a try." Although it was necessary to pass through these opposite headwaters, the trip was speedily and safely made.

On the trip the aviation force again demonstrated their great value as an adjunct to an aerial bombardment, were able to drop bombs accurately, and debris from naval and other badly mangled and debris from naval bombardment was transported with speed and safety, which could be obtained in no other manner. In all, it is estimated that more than a ton of freight was carried between Quantico and Force Headquarters and passengers of note, chief among them Col. Theodore Roosevelt, Acting Secretary of the Navy, were ferried to and from Rockaway. The other members of the delegation, and the names of the crewmen are as follows: Maj. Roy S. Geiger, Capt. Louis M. Bourne Jr., Capt. James E. Davis, Capt. James T. Moore, Capt. Francis P. Malaker, First Ensign John B. Bates, Harold D. Campbell, Walter D. Farroll, Band B Basilius, William J. Wallace, Secy. Ensign, Godfrey W. Kirchner, Lou Sullivan, Elmer D. Raynor, James E. Noble, Ensign F. Ward, Wallace D. Culverhouse, Benjamin H. Weller.

Marine Aviation

The Aviation Unit at Quantico.—Letters of commendation have been sent by Brig. Gen. G. D. Butler, commanding general of the Marine Corps Expeditionary Force, to Maj. Roy S. Geiger, commanding officer of the Marine Aviation Unit which served a part of the Force during the Field Force exercises conducted on July 23. During the period of twenty-three days which elapsed from the departure of the Expeditionary Force from Quantico on June 19 to its return on July 12, the Marine Aviation Unit compiled a record which equaled in the annals of air force history.

In all, seventeen active Marine Corps pilots took part in the exercises, making daily trips from Quantico to the points where the Marines halted each night on the journey to and from Quantico and performing aerial surveys and assistance in the maneuvering played. On the arrival of the Force at Quantico the aviation unit was transferred from Quantico to the area around headquarters of the Marine Expeditionary Force, and operations were conducted from Quantico with twenty planes of different types. In the aerial review for President Harding, eighteen ships were in the air at once, including three Martin bombers, seven DH-4 bombing planes and eight Wright scouts.

The most sensational feature of the performance of the Aviation Unit was the battle practice in which a large number of aircraft were brought down. The biplane was highly condemned by a board of review and was to be destroyed, when, on the suggestion of Major Geiger, it was decided to make its destruction a feature of the Gold Cup competition to furnish a spectacle affording perhaps the greatest thrill of the exercises.

During the thirty-three days of the field exercises, Marine aircraft operated nearly continuous hours in the air, and only one serious accident occurred, the result of which Captain Hanson and Sergeant Marion lost their lives. During the early maneuvers there was not a single case of engine failure or a defect discovered in a plane. Much of the credit

for this remarkable performance is due to Capt. Walter H. McCrory, engineer officer of the detachment.

Another special feature was the work of the radio telephone and telegraph crews of the aviation detachment. Under charge of Capt. Frank E. D. Moore, Marine Gunner Charles H. Bell, the General Radio Headquarters, was sent to start radio sets with Marine Headquarters in Washington and with all sections of his old force. The observation balloons were in charge of Marine Gunner William F. Crossfield, who was also largely responsible for the evolution of the system of the balloons to descend down the condensed balloon cables. Capt. Bert E. Johnson, Marine Gunner, was an observer officer. Ensign Howard C. May was special Agent, Capt. General Butler's staff, and Marine Gunner Rudolf Jansen was in charge of the aviation truck and trailer train.

The pilots are held in high press of Major Roy S. Geiger, commanding officer of the detachment. On the night of the heavy storm at Gettysburg it was necessary to send a plane to Quantico for urgent supplies needed. Major Geiger and his officers planned, during the night, to start the engine, but were not able to get through. Accordingly he said: "This is a dangerous trip and I do not know if it can be made safe by the only way to find out is to try, as I will make a try." Although it was necessary to pass through these opposite headwaters, the trip was speedily and safely made.

On the trip the aviation force again demonstrated their great value as an adjunct to an aerial bombardment, were able to drop bombs accurately, and debris from naval and other badly mangled and debris from naval bombardment was transported with speed and safety, which could be obtained in no other manner. In all, it is estimated that more than a ton of freight was carried between Quantico and Force Headquarters and passengers of note, chief among them Col. Theodore Roosevelt, Acting Secretary of the Navy, were ferried to and from Rockaway. The other members of the delegation, and the names of the crewmen are as follows: Maj. Roy S. Geiger, Capt. Louis M. Bourne Jr., Capt. James E. Davis, Capt. James T. Moore, Capt. Francis P. Malaker, First Ensign John B. Bates, Harold D. Campbell, Walter D. Farroll, Band B Basilius, William J. Wallace, Secy. Ensign, Godfrey W. Kirchner, Lou Sullivan, Elmer D. Raynor, James E. Noble, Ensign F. Ward, Wallace D. Culverhouse, Benjamin H. Weller.

Coming Aeronautical Events

AMERICAN

- Aug. 4-11—Aerial Meet, Airfield Exhibitions and International Congress, Chicago.
- Oct. 7—Gordon Bennett Trophy Race, New Haven, Conn. (Car the Marine Flying Trophy Competition).
- Dec. 12-16—Stevie Aerial Derby, Detroit. (Pulman Trophy Race).

FOREIGN

- August — Coupe Internationale, Biarritz speed meet; Naples, Italy.
- August — Tyrone Trophy (International Seaplane Competition) Naples, Italy.
- Aug. 8 — Gordon Bennett Balloon Race, Geneva, Switzerland.
- Aug. 12-18 — Seaplane Gliding Competition, Cleveland, Florida, U.S.A.
- Aug. 9-14 — Seaplane Gliding Competition, Garchfeld, Germany.
- September — Grand Prix of Italy (International airplane Competition), Milan, Italy.
- Sept. 22 — Coupe Henri de la Mothe de la Mothe (international speed race), France.
- December — International Parachute Competition, Roma, Italy.

Foreign News

Scandinavia.—The "Northern Post," a medium of aviation interests, companies, Norway, Denmark, Sweden and Finland, has issued the Aviators' Circular, which contains information regarding aviator movements and organization in the several countries. The list of aviators in the four countries shows that Sweden has the largest number of flyers, namely 289; Norway has 182 of whom 119 are head pilots and 64 others of captains, and Denmark has 68 aviators. Those of Finland are not shown. The list of military pilots is given in the book, but a list of civilian mechanics registered shows that Norway has 112, Sweden 102, Denmark 12 and Finland 3. The book also contains information on laws and regulations on air flying, civil and military aeronautics, public administration of aerial traffic, types of planes, radio stations, weather service, air mail service, education of pilots, aviation stations, classification and other data.

Great Britain.—Giles, who served with the British forces during the Great War, and was a Major in the Royal Air Force, will be a representative of the British delegation to the possibility of flying to the North Pole. If the route is considered practicable the flight is expected to be made next year. Lieutenant Giles will be accompanied by several members on his tour of investigation.

France.—It is reported that a competition is to be held at 1923 for commercial airplanes. It is stated that the French Under-Secretary of State for War will offer prizes of one million francs, and possibly other bodies will offer prizes. At the moment, however, nothing definite is known as regards the exact size, nor has it been decided whether or not the competition is to be international.

For the second annual contest for the Coupe Deutsch, which will take place at Etampes on Sept. 25, a Norwegian entry is reported to be certain, and it is said that the "coupeon" is being offered simultaneously. The planes are to be built reduced by, roughly, one-half, and the price is being offered to determine whether the "coupeon" is a different power seek or not yet known. A Norwegian entry is contemplated, but it is not known whether the RIEZ which was designed for last year's contest, or a machine as power being designed, will be used.

At least one entry from Italy is reported, and Great Britain again seems to be represented by the "Bristol." There also seems to be a chance of an entry by Fokker, so that taken all around the entries, Great Britain counts well, if all return 1923 time, assume a really international aspect.

Germany.—Following the lifting of the later Allied prohibitions of aircraft construction, the Germans are departing but have made a first list of aircraft which are approved for civil use. These are: *Curtiss* "Jenny" 100 hp. monoplane, and PFA 220 hp. biplane; *Dornier* "Cormorant" (CH) 220 hp.; *Dornier* "Dolphin" 220 hp. and "Sabine" (Distanz) 410 60 hp. biplane boats; *Ecklin* 25 hp. monoplane; *Fokker* 100 hp. monoplane (designed by Schwerzenbach Industriewerke, Ulm); *Henschel* 100 hp. metal biplane, model 215; 65 hp. *Heinkel* 60 hp. monoplane; LFG models V13 220 hp., V18 220 hp., V20 220 hp. biplane; *VFW* 220 hp. monoplane; *Nordholt* 220 hp. monoplane; *Staudinger*, 200 hp. monoplane; *Schneider* 25 hp. monoplane; and 25 hp. biplane; *Verbiest* 60 hp.; *Zeppelin-Staaken*, two 220 hp. engines.

Australia.—The Australian Controller of Civil Aviation, Col. H. Braund, has set about his task in a whole-hearted manner, and the results are gratifying. The first aeroplane recently completed a 6000 miles serial tour on the Bristol Trophy provided for his use. The flight, during which thousands of miles of practically unknown country were traversed, ranks as one of the best long-distance performances which has yet been recorded. To carry out the tour by any other than the serial route would have been practically impossible.

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